

SHEBERSTON, VI

Distr: 4E2d

2.0
Critical review of the criteria of sensitivity used in various
sensitometric systems. K. I. Markhulovich and V. I.
Sheberstov. *Uspekhi Nauk. Fot., Akad. Nauk S.S.S.R.*,
Udd. Khim. Nauk 5, 161-81(1957); cf. *ibid.* 4, 44(1955).
The American Sensitometric Standard, GOST (All-Union
State Standard) 2817-45, and GOST 2817-60 sensitometric
systems are reviewed. 36 references. J. W. L., Jr.

CR

SHEBERSTOV, V. [I]

Eminent scientist. Sov.foto 17 no.2:47-48 P '57. (MIRA 10:7)
(Chibisov, Konstantin Vladimirovich, 1897-)

SHEBERSTOV, V. I.

Distr: 4E2d

Effect of antifogging agents on the value of the contrast coefficient of photographic layers. V. I. Sheberstov and B. A. Shashlov (Polygraphic Inst., Moscow). *Zh. tekh. fiz.* 34, 10, 1964, 1833; *ibid.* 35, 1, 1965, 1833. — Sensitometric measurements were made of several types of film after development at 25° in a Metol-hydroquinone developer, initially bromide-free, to which were added varying amts. of KBr, benzotriazole (I), naphthotriazole (II), nitrobenzimidazole (III), 3-phenyl-1,2,4-thiadiazole-5-thione (IV), 5-methyl-7-hydroxy-2,3,4-triazolindolizine (V), 2-mercaptobenzimidazole-8-sulfonic acid (VI), or bis(phenyltetrazolyl) disulfide (VII). Data on max. contrast (γ_m), development time (t) required to attain γ_m , log d. at time t , $\gamma_{0.2}$ corresponding to a log d. of 0.2, and development time in min. ($t_{0.2}$) required to attain a γ of 1.5 are tabulated for Aerofilm Type 10. The concn. in g./l. of the given antifogant yielding the highest value of γ_m , the resulting γ_m , $\gamma_{0.2}$, and $t_{0.2}$ in that order are as follows: KBr, 4, 1.85, 1.05, 3.8; I, 0.5, 3.25, 3.05, 2.2; II, 0.2, 2.55, 2.05, 2.5; III, 0.1, 2.50, 2.50, 2.8; IV, 0.05, 2.50, 1.85, 3.2; V, 10, 2.25, 1.30, 10.0; VI 0.2, 2.10, 1.60, 3.0; VII, 0.1, 4.15, 4.15, 3.8. The value of γ_m is not changed by KBr, V, or VI, but is increased by I, II, III, IV, or VII.

J. W. Loyeberg, Jr.

PELL', V.I.; ~~SHIBERSTOV~~, V.I.

"Trudy" of the Leningrad Institute of Motion-Picture Engineers,
no.4, 1956. Zhur. nauch. i prikl. fot. i kin. 3 no.1:78-80 Ja-F
'58. (MIRA 11:2)

(Motion-picture projection)
(Cinematography)

SHEBERSTOV, V.I.; BORODKINA, M.S.; DONATOVA, V.P.

Research on temperature factors in photographic development.

Zhur. nauch. i prikl. fot. i kin. 3 no.2:112-116 Mr-Apr '58.

(MIRA 11:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut.

(Photography--Developing and developers)

VENDROVSKIY, K.V.; SHEBERSTOV, V.I.

Influence of hypersensitizing with amines on reciprocity law
failure under the condition of low illuminations. Zhur. nauch. i
prikl. fot. i kin. 3 no.2:136-137 Mr-Apr '58. (MIRA 11:5)

1. Moskovskiy poligraficheskiy institut.
(Photographic sensitometry)

AUTHORS: Markhilevich, K.I.; Sheberstov, V.I. SOV 77-3-4-16/23

TITLE: The Choice of the Best Criterion of Photosensitivity (K voprosu o vybore optimal'nogo kriteriya svetochuvstvitel'nosti) A Reply to S.S. Gilev's Comments (Otvet na zamechaniya S.S. Gileva)

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, 1958, Vol 3, Nr 4, pp 290-293 (USSR)

ABSTRACT: The authors attack S.S. Gilev's comments on their previously published article on the best criterion of photosensitivity. They point out that the system of taking $0.2 + D_0$ as the criterion is not universal for all types of photography as Gilev infers. They indicate and discuss some logical holes and omissions in Gilev's argument and some wrong inferences he has drawn from Mikhaylov and Istomin. The best criterion would be one by which values for photosensitivity could be worked out independent of the practical use to which the film is to be put. The authors therefore repeat their proposal for the use of two criteria of photosensitivity for each film: the point of inertia and a certain minimum "near threshold" optical density (e.g. $0.1 + D_0$). They also recommend the "Système officiel Français". Some of the errors present in the system of working out the photosensitivity of films in the

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SOV 77-3-4-16/23

The Choice of the Best Criterion of Photosensitivity. A Reply to S.S. Gilev's Comments

factories by use of GOST 2817-50 are discussed. There are 15 references, 14 of which are Soviet and 1 French.

1. Photographic emulsions--Photosensitivity 2. Photographic emulsions
--Theory 3. Photographic emulsions--Standards

Card 2/2

AUTHOR: Shashlov, B.A.; Sheberstov, V.I. SOV 77-3-4-22/23

TITLE: Photographic Training in Institutes of Higher Learning
(Fotograficheskoye obrazovaniye v vysshikh uchebnykh zavede-
niyakh); Instruction in the Photographic Process at the Moscow
Polygraphic Institute (Prepodavaniye distsiplin fotograficheskogo
tsikla v Moskovskom poligraficheskom institute)

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, 1958,
Vol 3, Nr 4, pp 311-313 (USSR)

ABSTRACT: Photographic training is given in the Institute, mainly by the
faculty of polygraphic technology, and is divided into: 1) a
general course in polygraphy, 2) theory of photographic processes,
and 3) the technology of preparing prints. The general course
consists of 6 hours of lectures by Docent N.N. Polyanskiy and
20 hours of practical and laboratory work. The theory of photo-
graphic processes course comprises 34 hrs of lectures and 56 hrs
of practical and laboratory work containing 12-14 problems. The
lectures are read by the authors and the laboratory work is under
the supervision of Assistant Docent M.V. Vendrovskiy. The tech-
nology of print preparation course is divided into 60 hours of
lectures and 60 hours of practical and laboratory work (14 prob-

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SOV 77-3-4-22/23

Photographic Training in Institutes of Higher Learning; Instruction in the
Photographic Process at the Moscow Polygraphic Institute

lems). Lectures are read by Docent N.I. Sinyakov and laboratory work is organized by Docent Yu.I. Zolotnitskiy and Senior Docent M.A. Ivanov. Details of the courses and post-graduate facilities are given.

1. Photography--Study and teaching

Card 2/2

AUTHORS: Vendrovskiy, K.V.; Sheberstov, V.I. SOV-77-3-5-10/21

TITLE: The Effect of Hypersensitization by Silver Halide Solvents on Deviations from the Law of Inter-changeability at Low Exposures (Vliyaniye gipersensibilizatsii rastvoritelyami galoidnogo serebra na otkloneniya ot zakona vzaimozamestimosti pri nizkikh osveshchennostyakh)

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, 1958, Vol. 3, Nr 5, pp 377-378 (USSR)

ABSTRACT: Hypersensitization by amines decreases the deviations from the law of inter-changeability at low exposures. To test whether the action of the amines consists in dissolving and corroding the surface of the silver halide emulsion crystals, the authors carried out tests with other silver halide solvents: sodium thiosulfate, sodium sulfite, potassium thiocyanate, ammonium thiocyanate, potassium bromide and sodium chloride. The results, drawn up in graph form, show that all the solvents decrease deviations from the law at low exposures. This indicates that the solvents act upon the surface structure of the silver halide micro crystals, thus rendering them more open to reaction. The

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SOV-77-3-5-10/21

The Effect of Hypercondensation by Silver Halide Solvents on Deviations from the Law of Inter-changeability at Low Exposures

photosensitive crystals, leading to an increase in contrast and a decrease in the lower curvilinear section of the characteristic curve. The amines may also act by increasing the concentration of silver ions in the emulsion, which would also tend to decrease the deviation. There are 6 graphs and 5 references, 4 of which are Soviet and 1 English.

ASSOCIATION: Moskovskiy poligraficheskii institut (Moscow Polygraphic Institute)

SUBMITTED: April 29, 1958

1. Photographic emulsions--Sensitivity 2. Silver halides--Solvents

Card 1/2

KIRILLOV, N.I., prof. ~~SHEBERSTOV~~, V.I., kand.khim.nauk

Successes in the field of photochemical processing of light-sensitive cinematographic materials. Khim.nauk i prom 3
no.5:615-622 '58. (MIRA 11:11)
(Photography--Developing and developers)

AUTHORS: Istomin, G.A., Sheberstov, V.I. SOV/77-3-6-10/15

TITLE: An Investigation of the Possibility of Increasing the Photographic Sensitivity in the Process of Development Without a Lowering of the Quality of the Image (Issledovaniye vozmozhnosti uvelicheniya fotograficheskoy chuvstvitel'nosti v protsesse proyavleniya bez snizheniya kachestva izobrazheniya)

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, 1958, Vol 3, Nr 6, pp 450-451 (USSR)

ABSTRACT: The authors investigated developers that intensify the developing process. Hydrazine was found to deteriorate the quality of the image. A developer containing a very small concentration of developing substance, and having a high alkalinity instead, was found to produce the best results. A developer named MF, the composition of which was taken from a Hungarian photo journal, was applied to Soviet negative MZ film and the results were tabulated (Table 1). The quality of the image, checked by the finest details, was not impaired. The "MF" developer was composed of 4 grams of metol, 100 grams of anhydrous sodium sulfite, 80 grams of triderivative crystalline sodium phosphate, 16 grams of sodium chloride, 2 milliliters of potassium bromide (10 % solution), and up

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SOV/77-3-6-10/15

An Investigation of the Possibility of Increasing the Photographic Sensitivity in the Process of Development Without a Lowering of the Quality of the Image

to 1 liter of water. The Developer was used in dilutions ranging from 1 : 5 to 1 : 20.

There is 1 table and 6 references, 3 of which are Soviet, 2 American and 1 Hungarian.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut (The All-Union Scientific Research Institute for Motion Pictures and Photography)

SUBMITTED: August 25, 1958

Card 2/2

AUTHOR: Sheberstov, V.I., Kirillov, N.I. SOV/77-3-6-13/15

TITLE: In Memory of Ya.M. Katushev (Pamyati Ya.M. Yatusheva)

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii,
1958, Vol 3, Nr 6, p 472 (USSR)

ABSTRACT: The article is a short biography on the Distinguished Scientist and Technician of the RSFSR, Doctor of Technical Sciences, Professor Ya.M. Katushev, awarded the Lenin Order and Medals of the USSR, who died on 2 July 1958. He was the dean of the higher chemical and photographic education in the USSR. Important stages in his career were the chair of photochemical technology of the Moskovskoye vyssheye tekhnicheskoye uchilishche (Moscow Technological College), the Nauchno-issledovatel'skiy institut kinofotoinstitut (Scientific Research Institute for Motion Pictures and Photography) and the Leningradskiy institut kinoinzhenеров (Leningrad Institute of Motion Picture Engineers). There is 1 photo.

Card 1/1

SHEBERSTOV, V.I., kand.khim.nauk, dotsent; SHASHLOV, B.A., kand.tekhn.nauk,
dotsent

Investigation of the effect of benzotriazole in developing FT-30
photographic films. Nauch. trudy MPI no.7/8:189-196 '58.

(Photography--Developing and developers) (Benzotriazole) (MIRA 14:12)

SOV/77-4-2-4/18

23(5)

AUTHOR: Sheberstov, V.I.

TITLE: Investigation of the Aging and Stabilization Processes in Photographic Layers (Issledovaniya protsessov stareniya i stabilizatsii fotograficheskikh sloyev) 1. The Kinetics and Photographic Mechanics of the Anomalous Aging of Photoemulsion Layers. (1. Kinetika i fotograficheskiy mekhanizm anomal'nogo stareniya fotoemulsionnykh sloyev)

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, 1959, Vol 4, Nr 2, pp 100-105 (USSR)

ABSTRACT: The author refers briefly to the work of Carroll and Hubbard [Refs. 1,2], Chibisov and his colleagues [Refs. 3,4] in which it is stated that the aging of a photographic layer can be regarded as a continuous, but retarded secondary maturing of the emulsion; this process is shown in Figure 1, where S is the light sensi-

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SOV/77-4-2-4/18

Investigation of the Aging and Stabilization Processes in Photographic Layers; 1. The Kinetics and Photographic Mechanics of the Anomalous Aging of Photoemulsion Layers.

tivity and D_0 the fog. However, experimental work carried out by the author and his colleagues from 1943 to 1945 [Ref. 5] showed that the change in photographic characteristics taking place during storage was not limited to the secondary maturing process; anomalous aging of the emulsion layers also took place. In order to amass factual material on the kinetics of the aging of photoemulsion layers, the author and his colleagues statistically processed sensitometric tests of a batch of 122 highly-sensitive panchromatic photographic films kept in their original packing, at average room temperature and humidity, in the archives of the OTK of a cine-film factory. The film emulsions were prepared by the ammonium method according to the same emulsion formula and contained no organic stabilizers.

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SOV/77-4-2-4/18

Investigation of the Aging and Stabilization Processes in Photographic Layers; 1. The Kinetics and Photographic Mechanics of the Anomalous Aging of Photoemulsion Layers.

The experiments were made once a month after the films had been stored for periods of from 6 to 24 months (about 1,000 tests were made in all). The results showed that it was possible to divide the emulsion layers of the batch into two groups according to the type of change in their photographic characteristics during storage: 1) those in which the aging proceeded according to the system of prolonged secondary maturing; 2) those in which continuous diminution of the light sensitivity took place without essential growth of fog. The latter process of anomalous aging is graphically presented in Figures 2 and 3, from which it can also be seen that the most rapid diminution of light sensitivity occurred during the initial period of storage, unaccompanied by growth of fog; this is the most characteristic

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SOV/77-4-2-4/18

Investigation of the Aging and Stabilization Processes in Photographic Layers; 1. The Kinetics and Photographic Mechanics of the Anomalous Aging of Photoemulsion Layers.

feature of anomalous aging. In order to establish how the speed of anomalous aging depended on the initial light sensitivity of the film, the emulsion layers were divided into four groups according to their light sensitivity. This showed that the greater the initial sensitivity, the faster it became reduced during storage, but that after a certain period the sensitivity values of all groups became closer to each other; however the growth of fog hardly depended on the initial light sensitivity. This can be seen from Table 1 and Figure 4. The author then examines the photographic mechanics of anomalous aging and finds that the diminution of light sensitivity consists of a continuous fall of the optical densities of the image with a very slow growth of fog (Table 2 and

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SOV/77-4-2-4/18

Investigation of the Aging and Stabilization Processes in Photographic Layers; 1. The Kinetics and Photographic Mechanics of the Anomalous Aging of Photoemulsion Layers.

Figure 6). This process is therefore quite different from that of normal aging where a steady rise of optical densities in the form of fog and image is found; the growth of the image densities gets slower and slower, that of the fog density faster and faster (Figure 5). Thus as the distance between D_i (=density of the image) and D_0 (=density of fog) decreases, the light sensitivity increases, but decreases when the growth of D_0 exceeds that of D_i . On the basis of these results, the author concludes that anomalous aging is caused by a certain continuous desensitization of emulsion grains of the photographic layer, as opposed to normal aging, caused by the continuous sensitization of the emulsion maturing. The possible mechanics of desensitization will be discussed by the

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SOV/77-4-2-4/18

Investigation of the Aging and Stabilization Processes in Photographic Layers; 1. The Kinetics and Photographic Mechanics of the Anomalous Aging of Photoemulsion Layers.

author in a later publication. The author finally discusses the thermostatic method of determining the keeping qualities of the photographic characteristics of emulsion layers. This consists in keeping the layer at a high temperature in an atmosphere of standard humidity and determining the photographic characteristics after comparatively short intervals of time (12, 24, 48 hrs. etc.). The wide use of this method in scientific and industrial work seems to indicate that the results obtained from it are equivalent to those obtained by tests made under normal storage conditions. However, the author says that the literature on this question [Refs. 6-8] is vague and contradictory. He shows that thermostatic aging is by nature equivalent to normal aging of the emulsion layers, while the change of

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SOV/77-4-2-4/18

Investigation of the Aging and Stabilization Process in Photographic Layers; 1. The Kinetics and Photographic Mechanics of the Anomalous Aging of Photoemulsion Layers.

their photographic characteristics under natural storage conditions often takes place according to the anomalous aging system.. Although thermostatic tests give a fairly true picture of the tendency of the emulsion layers to fog during storage, they by no means always indicate the relative lasting qualities of the light sensitivity (Figure 7). There are 7 sets of graphs, 2 tables and 8 references, 6 of which are Soviet and 2 English-language.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut (NIKFI) (All-Union Scientific Research Institute for Cinematography (NIKFI))

SUBMITTED: January 12, 1957

Card 7/7

25(1)

SOV/77-4-2-12/18

AUTHORS: Vendrovskiy, K.V., Sheberstov, V.I.

TITLE: The Maximum Light Sensitivity of Silver Halide Photographic Layers (O predel'noy svetochuvstvitel'nosti galoidoserebryannykh fotograficheskikh slojev)

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, 1959, Vol 4, Nr 2, pp 138-139 (USSR)

ABSTRACT: The authors state that calculation of the maximum light sensitivity of photographic layers is possible only after the following assumptions have been made: 1) that all the radiant energy in the visible spectrum falling on the photographic layer is absorbed by the emulsion grains; 2) that the photographic layer has a uniform spectral sensitivity from 400 to 700 μ ; 3) that absorption of one quantum of energy is enough to develop the grain. However, they state that the latter assumption is not justified from the practical viewpoint as

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SOV/77-4-2-12/18

The Maximum Light Sensitivity of Silver Halide Photographic Layers

the center of development must consist of several photo-lytically formed atoms of silver, and besides this, several electron traps may compete for one electron when the latent image is being formed. They find that the light sensitivity required equals:

$$S = \frac{4.5}{17.5 \cdot 10^{-5}} = 25,000 \text{ (lux-seconds)}^{-1} \text{ (S=light sensitivity)}$$

They carried out calculations taking the number of traps of equal value in the grain as 1, 5 and 10, and the number of silver atoms in the center of development as 1, 2, 3 and 4. The calculations were based on Poisson's probability formula and are shown in the table, where n is the number of quanta which should be received by a grain with a given number of traps and Ag atoms in the

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SOV/77-4-2-12/18

The Maximum Light Sensitivity of Silver Halide Photographic Layers

center of development and S is the light sensitivity. They finally remind the reader that since the photographic layer absorbs only about 50% of the light falling upon it, the figures obtained should be halved. There is 1 table and 4 references, 3 of which are Soviet and 1 English-language.

ASSOCIATION: Moskovskiy poligraficheskiy institut (Moscow Polygraphic Institute)

SUBMITTED: January 12, 1959

Card 3/3

VENDROVSKIY, K.V.; SHEBERSTOV, V.I.

Limit light-sensitivity of silver halide photographic layers.
Zhur.nauch. i prikl.fot. i kin. 4 no.2:138-139 Mr-Ap '59.
(MIRA 12:4)

1. Moskovskiy poligraficheskiy institut.
(Photographic emulsions)

SOV/77-4-4-1/19

23(5)

AUTHOR:

Sheberstov, V.I.

TITLE:

Investigations on Ageing and Stabilization Processes of Photographic Layers: II. Dependency Between Ageing and Some Factors In and Outside the Emulsion

PERIODICAL:

Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, 1959, Vol 4, Nr 4, pp 241-252 (USSR)

ABSTRACT:

The article presents an investigation of some factors in and outside the emulsion, which determine the character of ageing of photographic layers. The existence of acid in the sublayer diffuses into the emulsion layer. This is shown by some authors /Ref 2-47. This leads to a gradual increase of photosensitivity. For the experiment photographic emulsions with different contents of salicylic acid were poured on the sublayer. The content of salicylic acid was from zero up to 50 times as much as the usual industrial standard. In the storing time a dependency between the contents of acid in the sublayer and the change of the photographic qualities was not noticed. The experiment also showed

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Investigations on Ageing and Stabilization Processes of Photographic Layers; II. Dependency Between Ageing and Some Factors In and Outside the Emulsion

that salicylic acid within the photographic emulsion leads to an increase of photosensitivity only if there is more than 10 g of acid per kg emulsion. The change of the photographic qualities at thermostatic and natural storage of layers with different contents of surplus bromide was investigated. The investigated layers were divided into three groups, according to the pBr-factor of the emulsion. In the first group were emulsions with pBr of 2.30-2.70 (average 2.5); in the second group were emulsions with pBr of 2.71-3.15 (average 3.0); and in the third group emulsions with pBr of 3.16 and more (average 3.5). The pH factor of the emulsions was between 6.5 and 8.0 (average 7.0). Figure 1 shows, that emulsions with less surplus bromide have a greater stability of their photographic qualities. The results of the experiments, given in table 1 and 2 show that at thermostatic ageing higher contents of surplus bromide leads to a

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Investigations on Ageing and Stabilization Processes of Photographic Layers; II. Dependency Between Ageing and Some Factors In and Outside the Emulsion

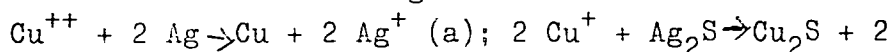
slower growth of haze. At natural ageing no dependency between growth of haze and a surplus bromide quantity was observed. Table 4 shows the dependencies between natural and thermostatic ageing and the duration of second ripening of the emulsion. At thermostatic ageing of little ripened emulsions, hazes grew slower than at strong ripened emulsions. According to the found data for natural storage, haze of all emulsions changed hardly at all. At thermostatic storage the photosensitivity of little ripened emulsions (Nr 141). Experiments with the same photographic emulsions were made: in one case sensibilized with panchromatic sensitizer, which is marked lower than dyestuff A, in the other case sensibilized with orthochromatic sensitizer, which is marked lower than dyestuff B. Schedule 6 shows typical results(S means photosensitivity at exposition to white light, S_k means photosensitivity at exposition to colored light).

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Investigations on Ageing and Stabilization Processes of Photographic Layers; II. Dependency Between Ageing and Some Factors In and Outside the Emulsion

Schedule 10 shows the change of photographic qualities by storing films at room temperature. The works of Sheppard and Wightman were used for these investigations [Ref 107]. The results given in schedule 12 show, that primary presence of copper results in an increase of the primary photosensitivity of the emulsion. This depends on the disactivation of photosensitive centers according to the scheme:



$\text{Ag}^+ \text{ (b)}$. A G. Kal'ko and N.M. Parfenova participated in this study. There are 2 graphs, 12 tables and 15 references, 9 of which are Soviet, 4 German, 1 English and 1 Japanese.

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Investigations on Ageing and Stabilization Processes of Photographic Layers; II. Dependency Between Ageing and Some Factors .
In and Outside the Emulsion

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut (NIKFI) (All-Union Scientific Research Institute for Motion Picture and Photography)

SUBMITTED: February 2, 1957

Card 5/5

PHASE I BOOK EXPLOTTATION

SOV/4159

Akademiya nauk SSSR. Komissiya po nauchnoy fotografii i kinematografii

Uspekhi nauchnoy fotografii, tom 7: Priroda fotograficheskoy chuvstvitel'nosti. Izgotovleniye galcidoserebryanykh fotograficheskikh sloyev.

Opticheskaya sensibilizatsiya i gipersensibilizatsiya. Khimiko-fotograficheskaya obrabotka svetochuvstvitel'nykh sloyev (Nature of Photographic Sensitivity. Preparation of Haloid-Silver Photographic Layers. Optical Sensitizing and Hyper-Sensitizing. Chemical-Photographic Treatment of Photo-Sensitive Layers) Moscow, 1960. 260 p. Errata slip inserted. 1,800 copies printed.

Editorial Board: K.V. Chibisov (Resp. Ed.) Corresponding Member, Academy of Sciences USSR, V.I. Sheberstov (Deputy Resp. Ed.) Candidate of Chemical Sciences, Docent, Yu. N. Gorokhovskiy, Doctor of Chemical Sciences, Professor, G.A. Istomin, Doctor of Technical Sciences, Professor, and I.I. Levkoyev, Candidate of Chemical Sciences; Ed. of Publishing House: K.I. Markhilevich; Tech. Ed.: G.S. Simkina.

PURPOSE: This collection of articles is addressed to those working in theoretical and applied photography and cinematography, and to researchers in the chemistry

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Nature of Photographic Sensitivity (Cont.)

SOV/4159

and physics of photographic processes.

COVERAGE: The collection contains articles from the editorial files of the Zhurnal nauchnoy i prikladnoy fotografii i kinematografii discussing problems in the preparation and processing of haloid silver light-sensitive layers, the nature of photographic sensitivity, the preservability of photographic layers, the theory and technology of the preparation of photographic emulsions and optical sensitization, and, finally, the chemical photographic processing of black-and-white and color photographic materials. Many of the articles contain the results of scientific investigations made by the authors. The collection also includes several reviews of current problems in the theory of chemical-photographic processes. A bibliography of Soviet and non-Soviet references accompanies each article.

TABLE OF CONTENTS:

I. NATURE OF PHOTOGRAPHIC SENSITIVENESS.
PREPARATION OF HALOID SILVER PHOTOGRAPHIC LAYERS

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Nature of Photographic Sensitivity (Cont.)

SOV/4159

Sheberstov, V.I. Aging and Stabilization Processes of Photographic Layers

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Solov'yev, S.M., and V.A. Dmitriyeva. Aging of Photographic Emulsions and Quantity of Illumination During Exposure

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SHEBERSTOV, V.I.

Investigating the aging and stabilization processes of photographic layers. Part 3: Physicochemical mechanism of anomalous aging. Zhur.nauch.i prikl.fot.i kin. 5 no.1:10-14 Ja-F
'60. (MIRA 13:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut
(NIKFI).
(Photographic sensitometry) (Photographic emulsions)

SHEBERSTOV, V.I.

Answering the comments of M.I.Shor on the problem of "normal" and
"anomalous" aging of photographic layers. Zhur.nauch.i prikl.fot.
i kin. 5 no.1:63-64 Ja-F '60. (MIRA 13:5)
(Photographic emulsions)
(Shor, M.I.)

SHEBERSTOV, V.I.

Investigating temperature effects on photographic development. Part 5: Some methodological problems in determining the energy of activation in the development of photographic layers. Zhur.nauch.i prikl.fot.i kin. 5 no.3:173-182
My-Je '60. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut (NIKFI).

(Photography--Developing and developers)

SHEBERSTOV, V.I.; BORODKINA, M.S.; DONATOVA, V.P.

Investigating temperature relationships in photographic development.
Part 6: Reduction of silver bromide salts and of the silver salts
of benzotriazole and 5-methyl- 7-hydroxy - 2,3,4,-triazaindolizine.
Zhur.nauch. i prikl.fot i kin. 5 no.5:331-333 S-0 '60.

(MIRA 13:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut (NIKFI).
(Photography--Developing and developers)
(Silver salts)

SHEBERSTOV, V.I.; KANTOR, F.P.; NOVIKOVSKAYA, N.A.

New state standards for methol, hydroquinone and sodium sulfite.
Zhur.nauch.i prikl.fot. i kin. 5 no.6:473-476 N-D '60.

(MIRA 14:1)

(Photography--Developing and developers--Standards)

VENDROVSKIY, K.V.; SHEBERSTOV, V.I.

Calculating the maximum sensitivity to light of photographic layers. Zhur. nauch. i prikl. fot.i kin. 6 no.1:27-33 Ja-F '61.
(MIRA 14:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy kino-fotoinstitut(NIKIFI).
(Photographic emulsions)(Photographic sensitometry)

SHEBERSTOV, V.I.

Aging and stabilization of photographic layers. Usp.nauch.fot. 7:
25-49 '60.

(MIRA 13:7)

(Photographic emulsions)

SHEBERSTOV, V., kand.khimicheskikh nauk

Light sensitivity of photographic films. Sov.foto 20 no.6:31 Je
'60. (MIRA 13:7)

(Photography--Films)

VENDROVSKIY, K.V.; SHEBERSTOV, V.I.

Reversibility of the desensitizing effect of moisture on the
photographic layers. Zhur.nauch.i prikl.fot.i kin. 5 no.4:
295-296 J1-Ag '60. (MIRA 13:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy kino-fotoinstitut
(NIKFI).

(Photographic emulsions)

MARKHILEVICH, K.I.; SHEBERSTOV, V.I.; KIRILLOV, N.I., prof., doktor tekhn.nauk; MASLENKOVA, N.G.; KOLOSOV, K.A.; MIKHAYLOV, V.Ya.; MATIYASEVICH, L.M.; FRIDMAN, I.M.; SPASOKUKOTSKIY, N.S.; KHAZAN, S.M.; DEYCHMEYSTER, M.V.; BLYUMBERG, I.B., dotsent, retsenzent; LYALIKOV, K.S., prof., doktor khim.nauk, retsenzent; TELESHEV, A.N., red.; MALEK, Z.N., tekhn.red.

[Present-day developments in photographic processes; processing of light sensitive materials and new processes for obtaining the photographic image] Sovremennoe razvitie fotograficheskikh protsessov; obrabotka svetochuvstvitel'nykh materialov i novye protsessy polucheniya fotograficheskogo izobrazheniya. Pod red. N.I.Kirillova. Moskva, Gos.izd-vo "Iskusstvo," 1960. 341 p. (MIRA 14:4)

1. Leningradskiy institut kinoinzhenerov (for Blyumberg).
(Photographic chemistry)

SHEBERTSTOV, V.I.

Studying the temperature relationships of the photographic development. Part 7: Effect of exposure and development time on the energy of activation. Zhur.nauch.i prikl. fot. i kin. 6 no.2:97-1Q1 Mr.-Ap '61. (MIRA 14:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut.
(Photography--Developing and developers)

VENDROVSKIY, K. V.; SHEBERSTOV, V. I.

Limits of the photographic sensitivity today and tomorrow;
London conference. Zhur.nauch. i prikl.fot. i kin. 6 no.4:317-
319 J1-Ag '61. (MIRA 14:11)
(Photographic sensitometry)

SHEBERSTOV, V.I.; SHASHLOV, B.A.

Effect of some organic compounds on the selectivity of photographic development. Zhur.nauch.i prikl. fot.i kin. 6 no.6:413-417 N-D
'61. (MIRA 15:1)

1. Moskovskiy poligraficheskiy institut.
(Photography--Developing and developers)

VINOGRADOVA, A.D.; KOVAL'SKAYA, M.Ye.; SHEBERSTOV, V.I.

Determining copper content of photographic gelatins. Zhur.
nauch.i prikl. fot.i kin 6 no.6:450-452 N-D '61. (MIRA 15:1)

1. Moskovskiy poligraficheskiy institut.
(Photographic emulsions--Testing)

VENDROVSKIY, K.V.; BEKUNOV, V.A.; SHEBERSTOV, V.I.

Present-day level and theoretical limits of sensitivity of
photographic silver halide layers. Zhur.nauch.i prikl.fot.
i kin. 6 no.5:367-370 S-O '61. (MIRA 14:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut
(NIKFI)

(Photographic emulsions)
(Photographic sensitometry)

SECRET, V.I.; ENCL. 1.; VIKENITY. No. 8.

1. The first of these is the "graphical" or "visual" type, in which the information is presented in a form that is easy to understand and remember. This type of information is often presented in the form of a diagram, a chart, or a picture. It is often used to illustrate a concept or to show the relationship between different parts of a system.

Stomach contents (Photographic evidences)

Z/011/62/019/010/008/009
E112/E435

AUTHORS: Sheberstov, V.I., Vendrovskiy, K.V.

TITLE: Study of temperature effects on photographic development

PERIODICAL: Chemie a chemická technologie. Přehled technické a hospodářské literatury, v.19, no.10, 1962, 484, abstract Ch 62 6524 (Zh. nauch. prikl. Fotogr. Kinematogr. v.7, no.2, 1962, IV, 103-111)

TEXT: This is the eighth in a series of papers dealing with the dependence of the kinetics and activation energy of photographic development on the state of the latent image. The paper describes experiments with latent images and the development of films, exposed to light of different intensities.
5 diagrams, 8 tables, 5 literature references.

[Abstracter's note: Complete translation.]

Card 1/1

SHEBINSTOV, V.I.; KHEITMAN, A.S. [HEINMAN, A.S.]; BORODKINA, M.S.

Studying the temperature dependences of photographic development.
Part 9. Energy of activation of the development of natural defects
of silver halide crystals in photographic layers. Zhur.nauch.i
prikl.fot. i kin. 7 no.3:182-186 My-Je '62. (MIRA 15:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut (NIKFI).
(Photography--Developing and developers)
(Silver halides)

SHEBERSTOV, V.I.

"Publications of the scientific photographic laboratories 'Agfa:'
[in German]. Vol.9. Reviewed by V.I.Sheberstov. Zmur.nauch.i
prikl.fot.i kin. 7 no.4:323-324 J1-Ag '62. (MIRA 15:8)
(Bibliography—Photography)

SHEBERSTOV, V.I.

Studying the aging and stabilization processes of photographic layers. Part 4: Kinetic law of the loss of sensitivity by panchromatic films in storage. Zhur.nauch.i prikl.fot.i kin. 7 no.5:341-347 S-O '62. (MIRA 15:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut (NIKFI).
(Photographic emulsions) (Photographic sensitometry)

SHEBERSTOV, V.I.

Limit sensitivity and other than silver halide photographic
processes. Zhur.nauch.i prikl.fot.i kin. 7 no.5:394-402 S-0
'62. (MIRA 15:11)
(Photography) (Photographic sensitometry)

OVECHKINA, T.G.; VINOGRADOVA, A.D.; SHEBERSTOV, V.I.

Photometric equivalent of the developed silver of technical
photographic films. Zhur.nauch.i prikl.fot.i kin. 7
no.6:467-469 N-D '62. (MIRA 15:12)

1. Moskovskiy poligraficheskiy institut.
(Photographic sensitometry)

CHURAYEVA, A.M.; SHEBERSTOV, V.I.

Mechanism of the action of polyethylene glycols in the photographic developer. Zhur. nauch. i prikl. fot. i kin. 8 no.3: 212-214 My-Je '63. (MIRA 16:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut (NIKFI).

(Glycols)

(Photography—Developing and developers)

KERUTSKITE, M.K.; RYABOVA, L.M.; SHASHLOV, B.A.; SHEBERSTOV, V.I.

Effect of triethanolamine and organic dyes on the sensitivity of ammonium chromate gelatin layers. Zhur. nauch. i prikl. fot. i kin. 8 no.4:303-304 JI-Ag '63. (MIRA 16:7)

1. Moskovskiy poligraficheskiy institut i Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut (NIKFI).
(Photographic sensitometry) (Ethanol)

SHEBERSTOV, V.I.

Chemistry of photographic emulsions; a congress in Kazan.
Vest. AN SSSR 33 no.12:85-86 D '63. (MIRA 17:1)

SHEBERSTOV, V.I.

Studying the kinetics and mechanism of the photographic development. Part 1: Kinetics of the regular growth of the silver nucleus during the developing process. Zhur. nauch. i prikl. fot. i kin. 9 no.1:46-50 Ja-F'64. (MIRA 17:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut (NIKFI).

CHURAYEVA, A.M.; SHEBERSTOV, V.I.; POPOVA, O.V.

Effect of polyethylene glycol on the induction period and
subsequent speed of the photographic development. Zhur.nauch.
i prikl.fot. i kin. 9 no.2:122-124 Mr-Ap '64. (MIRA 17:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut (NIKFI).

ABRITALIN, V.L.; SOLOV'YEVA, V.N.; SHEBERSTOV, V.I.

Studying the developing properties of 1-phenyl-5-pyrazolidone and its derivatives. Part 1: Superadditive effect of phenidone with various developing substances. Zhur. nauch. i prikl. fot. i kin. 9 no.5:333-336 S-O '64.

(MIRA 17:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut (NIKFI).

RYABOVA, L.M.; SHEBERSTOV, V.I.

Thermoplastic polymers, photopolymerization and photo-
destruction in photographic processes. Part 1. Therm-
plastic polymers. Zhur.nauch.i prikl.fot. i kin. 10
no.3:222-234 My-Je '65. (MIRA 18:11)

BOBOKINA, M.S.; MIKHAYLOVA, A.A.; SHEBERSTOV, V.I.

Sensitivity reaction of photographic gelatine to labile sulfur.
Zhur.nauch.i prikl.fot. i kin. 10 no.3:220-221 May-June '66.

(MIRA 18:11)

3. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut.

ABRITALIN, V.B.; ZHURIN, R.B.; SIMONOVA, N.I.; SHEBERSTOV, V.I.;
SHUL'GINA, O.Ye.

Investigating the developing properties of 1-phenyl pyrazolidone-3
and other pyrazolidone-3 derivatives. Zhur. nauch. i prikl. fot.
i kin. 10 no.5:321-329 S-0 '65. (MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut (NIKFI),
Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i
krasiteley (NIOPiK) i Leningradskiy institut kineinzhenerov (LEKI).

KOPERZHINSKIY, V.V.; SHEBERSTOV, V.V.

Intake and distribution of trace-phosphorus in the case of application
of additional doses of fertilizers in *Papaver somniferum* L. Dokl.AN
SSSR 106 no.6:1061-1064 F '56. (MLRA 9:7)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut lekarstvennykh i
aromaticheskikh rasteniy. Predstavleno akademikom A.L.Kursanovym.
(Phosphorus--Isotopes) (Poppy)

L 13609-63 BDS/EWT(d)/FCC(w) AFFTC IJP(C)

ACCESSION NR: AP3001109

S/0208/63/003/003/0568/0574

AUTHOR: Sheberstov, Ye. V. (Moscow)

52

TITLE: The number of operations for solving a Cauchy problem for a hyperbolic equation

SOURCE: Zhurnal vy*chislitel'noy matematiki i matematicheskoy fiziki, v. 3, no. 3, 1963, 568-574

TOPIC TAGS: Cauchy problem, numerical solution, number of operation, accuracy Epsilon, hyperbolic equation, Goursat problem, wave equation

ABSTRACT: The author derives a numerical scheme for solution of a Cauchy problem for a hyperbolic equation (see enclosure). This is accomplished by a transformation of coordinates which expresses the problem in two parts. One of these is a Goursat problem and the other is approximable by the wave equation. From this the author obtains a lower bound for the number of arithmetic operations necessary for solution to an accuracy of Epsilon, and actually finds an algorithm yielding an accuracy of Epsilon, which almost attains this lower bound. In conclusion the author expresses his gratitude to N. S. Bakhvalov for the statement of the problem and valuable advice for this research. Orig. art. has: 37 formulas and 2 figures.

Card 1/81

SHEBERSTOVA, G. YE.

Sheberstov, V.I. and Sheberstova, G.Ye. "Catalytic effect of silver during oxidation of amino-oxide producing benzol," report 70, Trudy NIKFI (Nauch.-issled . kino-foto-in-t), Issue 7, 1947 (column title: 1947), p. 101-07 - Bibliog: 12 items

SO: U-2888, Letopis Zhurnal'nykh Statey, No. 1, 1949

SHMBERSTOV, V.I.; SHBERSTOVA, G.Ye.

Catalytic action of silver during the oxidation of hydroxyamino-derivatives of benzene. Trudy NIKFI no.7:101-107 '47. (MIRA 11:6)

1. Laboratoriya obrabotki plenki Nauchno-issledovatel'skogo kino-foto-instituta, Moskva.

(Benzene) (Silver)

SHEBERSTOVA, G.Ye.

Methods in determination of carotene. Gig.Sanit., Moskva No.1:
37 Jan 51. (CLML 20:5)

1. Of the State Control Vitamin Station.

CHEN, C. C.

Cand. Technical Sci. "Serial Cable with Conical Cross-Sections of Cylinders,"
Radiotekhn., 4, No. 4, 1949.

SHEBES, Mikhail Romanovich; TSIKLINAM Yevgeniya Aleksandrovna;
ROZHDESTVENSKAYA, V.A., red.

[Problems in electromagnetic field theory; textbook for
students of the technological faculties of the All-Union
Correspondence Electrotechnical Institute of Communica-
tions] Zadachnik po teorii elektromagnitnogo polia;
uchebnoe posobie dlia studentov tekhnicheskikh fakul'te-
tov VZEIS. Moskva, Red.-izd.otdel Vses. zaochnogo
elektrotekhn. in-ta sviazi, 1963. 199 p. (MIRA 18:3)

SHEBESHTEN, B., DYAKOV, Yu. Ye., SAKALYAN, K., and MARKOV, A. A.

"Impulse Scaling Circuit Using New System with Multiple Equilibrium States"

Joint Institute of Nuclear Research, Dubna, USSR.

report submitted for the IAEA conf. on Nuclear Electronics. Belgrade, Yugoslavia
15 20 May 1961

ARONZON, Gavriil Semenovich; BANNIKOV, Sergey Petrovich; SHEBES, M.R.,
dotsent; GALAKTIONOVA, Ye.N., tekhn.red.

[Electrical engineering and electric equipment of motor vehicles]
Elektrotehnika i elektrooborudovanie avtomobilei. Moskva, Nauchno-
tekhn.izd-vo M-va avtomobil'nogo transporta i shosseinykh dorog
RSFSR, 1960. 558 p. (MIRA 13:9)
(Motor vehicles--Electric equipment)

Accession Nr L 45485-66 EWP(t)/ETI IJP(c) JD/WB
ACC NR: AT6033335 SOURCE CODE: HU/2504/65/051/03-/0361/0379
UK

AUTHOR: Varga, J.--Varga, Y.; Sebestyen, Gy.--Shebesht'yen, D.; Shalnew, K. K.--Shal'nev, K. K.; Tschernawskij, B. A.--Chernyavskiy, B. A.

ORG: [Varga; Sebestyen] Technical University, Budapest; [Shalnew; Tschernawskij] Institute for Mechanics, AN SSSR, Moscow

TITLE: Investigation of the scale effect in cavitation corrosion 54

SOURCE: Academia scientiarum hungaricae. Acta technica, v. 51, no. 3-4, 1965, 361-379 B+1

TOPIC TAGS: corrosion, cavitation

ABSTRACT: This article is the Hungarian publication of an article published in Zh. Prikl. Mekh. i Tekh. Fiz. AN USSR, 1963, no. 3, pp. 122-129. The methodologies employed at the authors' Institutes for the investigation of the scale effect were described. This investigation covers the subject on the basis of an energetical parameters. The equipment used and the experimental conditions employed were discussed and an evaluation of the work is made. Orig. art. has: 11 figures, 2 formulas and 1 table. [Orig. art. in German] [JPRS: 33,732]

SUB CODE: 11, 20 / SUBM DATE: 23Nov63 / ORIG REF: 003 / SOV REF: 008
OTH REF: 018

Card 1/1 - 1/2

0920 1356

SHEBETICH, S.

YUGOSLAVIA/Virology - Human and Animal Viruses.

E-3

Abs Jour : Ref Zhur - Biol., No 3, 1958, 9705

Author : Topolnik, Shebetich, Aleray, Audi, Dzhyukich

Inst : -

Title : Immunological Interrelationship of Equine Abortion Viruses and Grippe in Horses.

Orig Pub : Veterin. arh., 1956, 26, No 1-2, 16-20

Abstract : The complement-linked antibodies of mares' abortion viruses were examined in the serum of 32 grippe-affected horses and 293 healthy animals. The complement fixation test was positive in the majority of diseased horses and negative in almost all the healthy ones. The authors consider that this confirms the relationship or identify of the indicated viruses.

Card 1/1

YUGOSLAVIA/Diseases of Farm Animals. Diseases Caused by R
Viruses and Rickettsiae.

Abs Jour: Ref Zhur-Biol., No 9, 1958, 40615.

and, therefore, it is not suitable for diagnosis
of infectious anemia in horses.

Card : 2/2

USER/FarmAnimals - Swine

Q-5

Abs Jour : Ref Zhur - Biol., No 6, 1958, No 26207

by 111 g., and the repaying cost of feed by 0.94 of the feed unit, as compared with animals not receiving animal proteins. The author concludes that it is possible to raise purebred young pigs without increasing the present standards of protein nutrition on condition that fullvalue proteins be fed.

Card : 2/2

42

OTBISOMENHO, A.F., Cand Agr Sci--(disc) "^{list}~~Cultivation~~ and mode of utilization
of ~~grass~~ under various conditions ^{list} of protein ~~nutrition~~." Poltava, 1953.
20 pp (Min of Agr USSR. Kharkov Eco-Tech ~~Instit~~), 100 copies
(M, 30-50, 130)

ANISONYAN, A.A.; SHEELO, I.R. Prinimale uchastie NII'ID, Ye.f.

Hydrogen reduction of natural phosphorites. Izv. Prikl. Khim.
37 no.11:2361-2367 N '64 (MIRA 18:1)

MEBOLDASHOV, I.B.

Improving the organization of production processes in the enterprises
of the Lower Volga Economic Region. Izv. tekhn. ekon. inform. i nauch.-issl.
inst. nauch. i tekhn. inform. 1 no. 10:89 0 164. (1989 18:4)

SHIBALOV, I.R.; ANTONOV, I.S.

Increasing the economic efficiency of production management.
Biol.tekh.-kon.inform.Gos.nauch.-issl.inst.nauch.i tekhn.inform.
18 no.4:59-61 Ap. '65. (MIRA 18:6)

SHEBOLDAYEVA, A.D.; VASIL'YEVA, I.N.; MAL'TSEVA, L.Z.

Evaluation of the method of a single immunization of guinea
pigs and white rats with the poliomyelitis virus. Trudy
Mosk. nauch.-issl. inst. virus. prep. 2:132-136 '61.
(MIRA 17:1)

SHEBOLDAYEVA, A.D.; LEVCHENKO, Ye.N.

Effect of the pH of the culture medium on the viability of
the poliomyelitis virus. Trudy Mosk. nauch.-issl. inst.
virus. prep. 2:137-141 '61. (MIRA 17:1)

SHEBOLDAYEVA, A.D.; LEVCHENKO, Ye.N.; VASIL'YEVA, I.N.

Effect of repeated freezing and thawing on the viability
of the poliomyelitis virus. Trudy Mosk. nauch.-issl. inst.
virus. prep. 2:142-145 '61. (MIRA 17:1)

RAPOFORT, R.I.; DOROFYEV, V.M.; SHEBOLDAYEVA, A.D.; LEBEDEVA, L.I.

Effect of the monkeys' age on the morphology of a culture
of testicular cells on their susceptibility to the polio-
myelitis virus. Trudy Mosk. nauch.-issl. inst. virus. prep.
2:246-253 '61. (MIRA 17:1)

DOSSER, Ye.M.; DOROFYEV, V.M.; FADEYEVA, L.L.; RAPOPORT, R.I.;
SHEBOLLAJEVA, A.D.

Multiplication of the measles virus in tissue cultures of different
animals. Vop.virus 7 no.4:11-17 J1-Ag '62. (MIRA 15:8)

1. Moskovskiy nauchno-issledovatel'skiy institut virusnykh pre-
paratov.

(MEASLES) (TISSUE CULTURE)

1. The following information was obtained from a review of the files of the Central Intelligence Agency and the Department of Defense, and is being furnished to you for your information. It is not to be used for any other purpose without the express written consent of the Central Intelligence Agency and the Department of Defense.

2. The following information was obtained from a review of the files of the Central Intelligence Agency and the Department of Defense, and is being furnished to you for your information. It is not to be used for any other purpose without the express written consent of the Central Intelligence Agency and the Department of Defense.

GALABURDA, Aleksandr Fedorovich,; SHRAYMAN, Lev Iosifovich,; SHKIBLO, Ye.P.,
nauchnyy red.; DATINA, G.A., red.; GILSONSON, P.G., tekhn. red.

[Kaolin production] Proizvodstvo kaolina. Moskva, Gos. izd-vo lit-ry
po stroit., arkhitekt. i stroit. materialam. 1958. 191 p. (MIRA 11:12)
(Kaolin)

YELYUTIN, V.P.; PAVLOV, Yu.A.; SHEBOLDAYEV, S.B.; MARUKHIN, A.V.

Initial stages of the interaction of V_2O_5 with carbon. Izv.
vys. ucheb. zav.; Chern. met. 7 no.7:52-55 '64 (MIRA 17:8)

1. Moskovskiy institut stali i splavov.

KRYMOV, M.; SHEBSHAYEVICH, I.

Reduction of norm quantities in loading and unloading operations. Avtomobil'
25 no.5:8 My '47. (MLRA 6:9)

(Loading and unloading)

SHEBSHAYEVICH, S.I., kapitan.

Experience in lake navigation. Rech.transp. 17 no.11:48-49
N '58. (MIRA 11:12)

1. Teplokhod "Korolenko."
(Inland navigation)

PHASE I BOOK EXPLOITATION 619

Astaf'yev, Georgiy Pavlovich, Shebshayevich, Valentin Semeovich
and Yurkov, Yuriy Alekseyevich

Radionavigatsionnyye ustroystva i sistemy (Radionavigational
Devices and Systems) Moscow, Izd-vo "Sovetskoye radio", 1958.
863 p. Number of copies printed not given.

Eds.: Ilyukhin, V.F. and Volkova, E.M.; Tech. Ed.: Koruzev, N.N.

PURPOSE: The book is a textbook for students of higher military
schools as well as higher technical schools (vtuz). It may be
used by engineers and technicians engaged in the field of radio
navigation.

COVERAGE: The book gives an account of the theory and basic
principles of operation of present-day radio devices and systems
used for navigation. General characteristics of radionavigational

Card 1/16

ASTAF'YEV, G.P.; SHEESHAYEVICH, V.S.; YURKOV, Yu.A.; BELYAKOV, A.V., prof.,
Geroy Sovetskogo Soyuz, doktor geogr. nauk, retsenzent;
SOLOMYANYI, V.P., kand. tekhn. nauk, dots., retsenzent;
ZABOLOTSKIY, N.G., red.; BELYAYEVA, V.V., tekhn. red.

[Airborne radio navigation apparatus] Radiotekhnicheskie sredstva
navigatsii letatel'nykh apparatov. [By] G.P. Astaf'ev i dr. Moskva,
Sovetskoe radio, 1962. 962. (MIRA 16:3)

(Radio in navigation)
(Airplanes--Electronic equipment)

L 18922-63 EWT(d)/BDS AFMTC/ASD/AFMDC/APGC Pg-4/Pk-4/Pl-4/Pn-4/Po-4/Pq-4
ACCESSION NR: AP3006585 BC S/0020/63/151/006/1295/1298

AUTHOR: Shebshayevich, V. S. 78

TITLE: Problems in navigation theory. Presented by Academician B. N. Petrov, 1 January 1963

SOURCE: AN SSSR. Doklady*, v. 151, no. 6, 1963, 1295-1298

TOPIC TAGS: navigation theory, cybernetics, navigation, space time continuum, non-Euclidean space, Riemann space

ABSTRACT: The author considers navigational information as information on the relative coordinates of bodies in four-dimensional space-time continuum. The latter is, in the general case, non-Euclidean, but rather Riemannian. Formulas are derived which connect the increase of geometrical coordinates with the increase of time. The technical means of measuring the intervals may be radio, acoustical, optical, etc. Orig. art. has: no formulas, tables, or figures.

ASSOCIATION: none

Card 1/2

L 18922-63

ACCESSION NR: AP3006585

SUBMITTED: 19Jan63

DATE ACQ: 27Sep63

ENCL: 00

SUB CODE: CG

NO REF SOV: 002

OTHER: 000

Cord 2/2

SHEBSMAN, G. A.

The communication line along the Taas-Tumus - Yakutsk -
Pokrovsk Gas Pipeline. Stroi. truboprov. 8 no.4:5-7 Ap '63.
(MIRA 16:4)

1. Institut Yuzhgiprogaz, Donetsk.

(Yakutia—Pipelines—Communication systems)

BAKHCHISARAYTS'YAN, N.G.; SOROKIN, V.K.; SHEBUKHOVA, L.A.

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(Zinc) (Chromates) (Films (Chemistry))